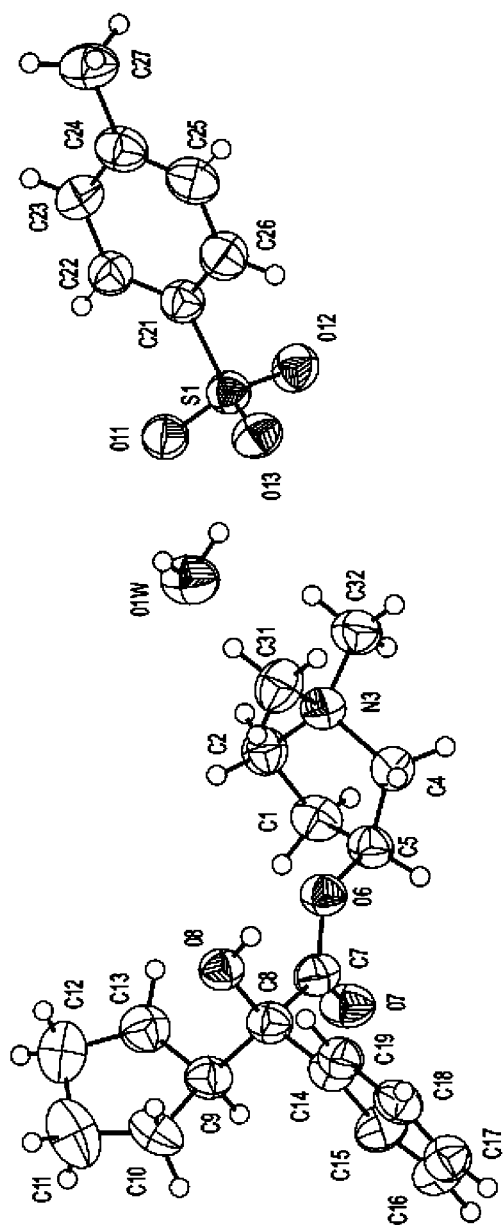


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ORTEP OF FORM D GLYCOPYRROLATE TOSYLATE MONOHYDRATE

FIG. 1

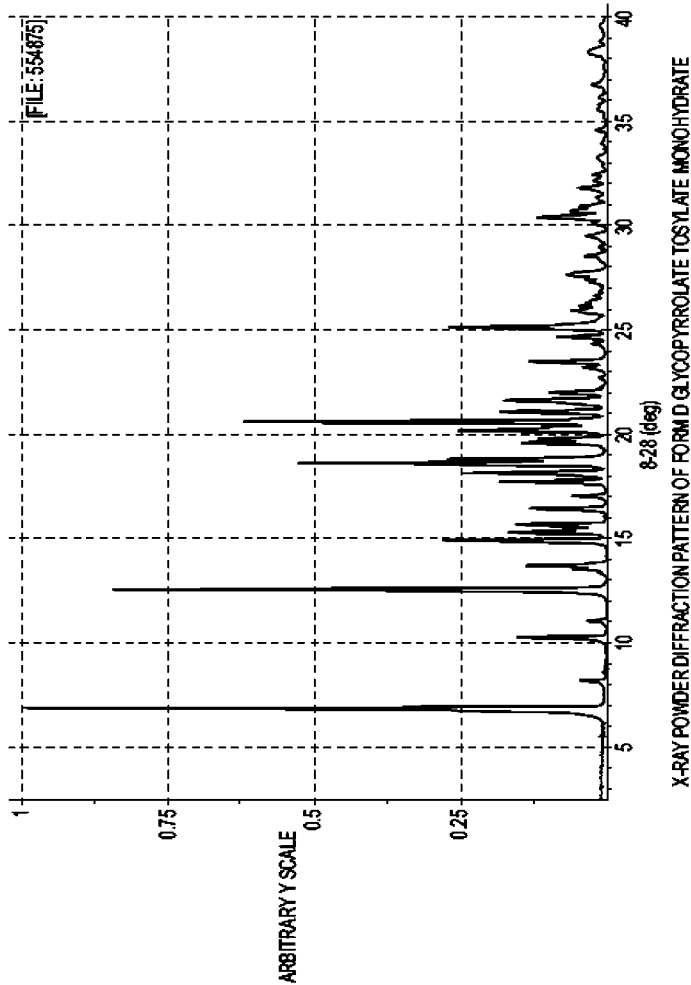
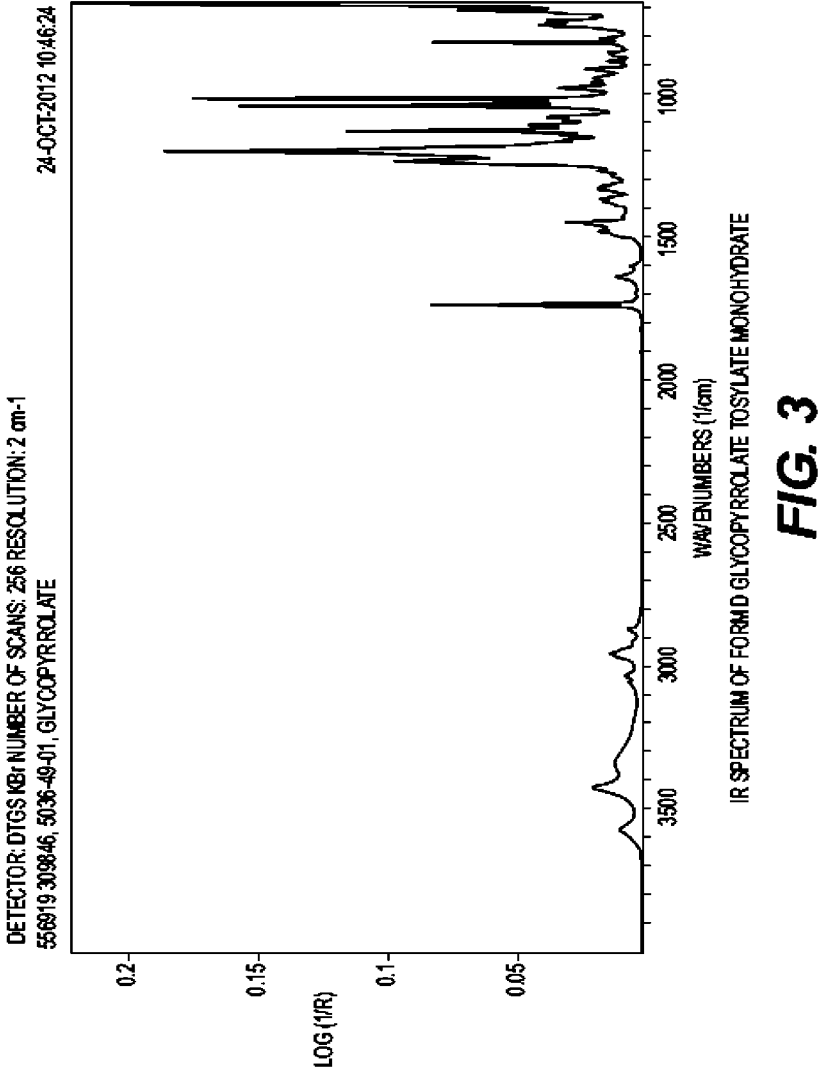


FIG. 2



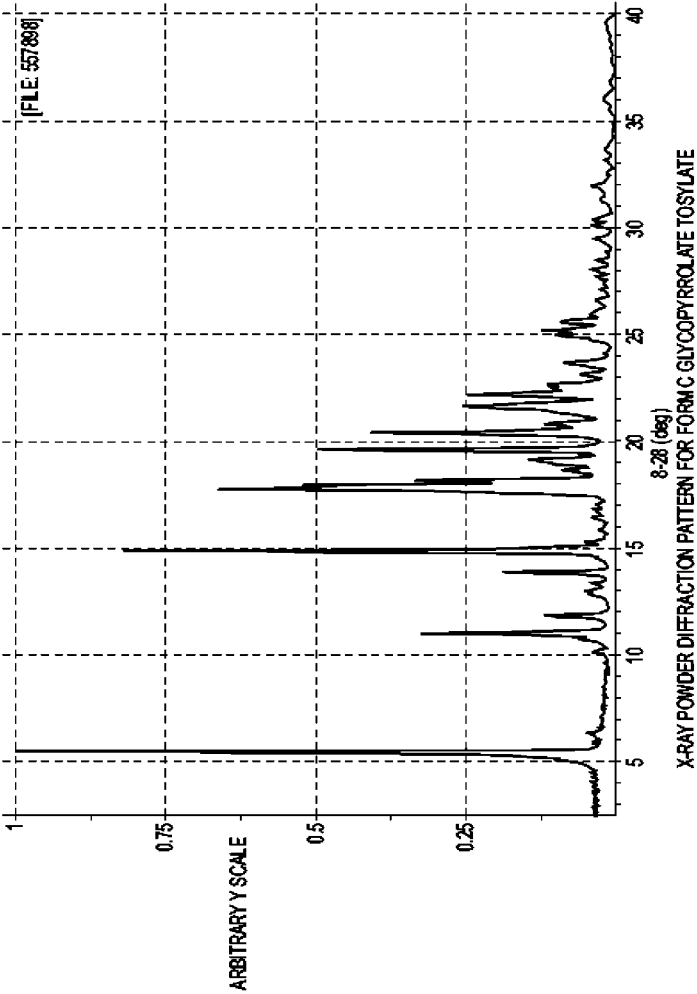


FIG. 4

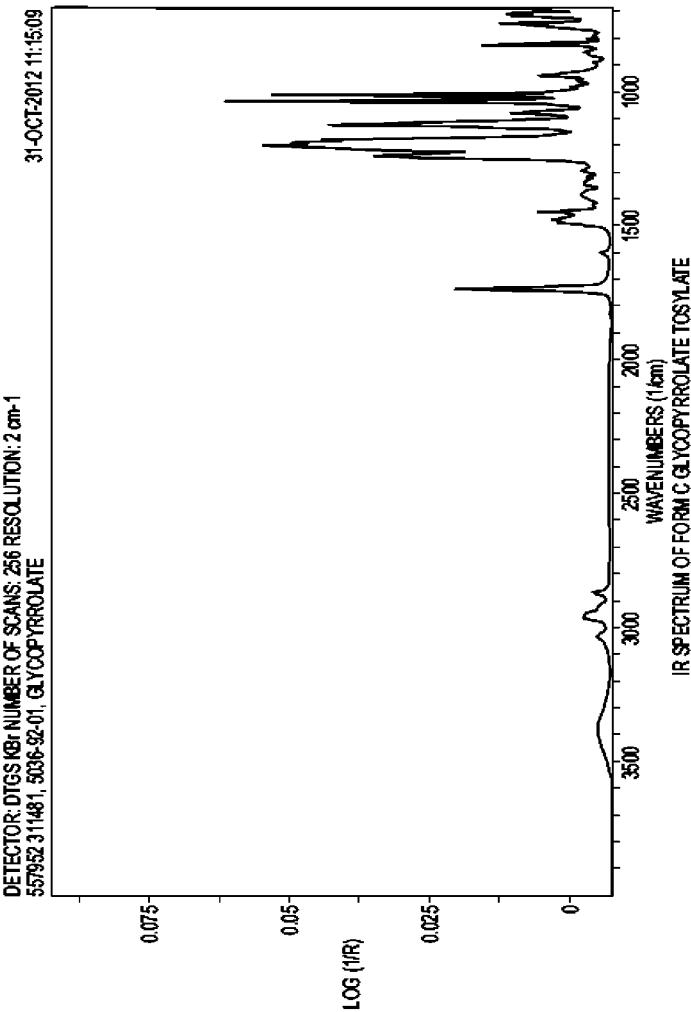
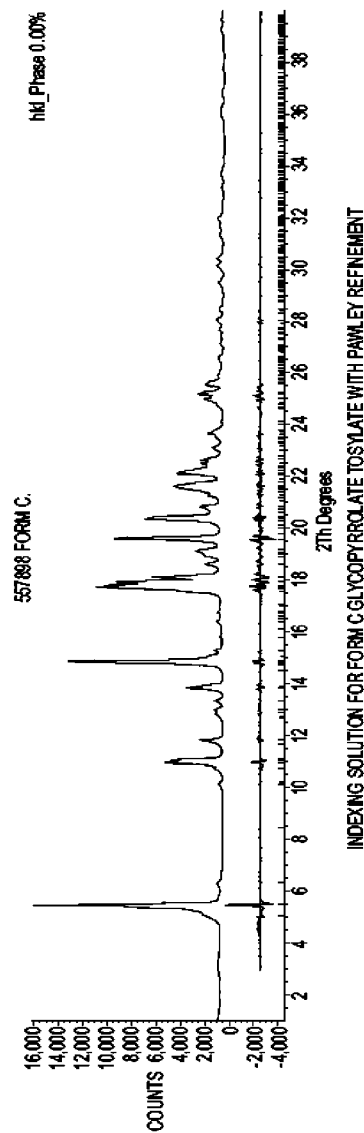


FIG. 5



Pawley refinement Rwp=7.56%
Space group P1/P-1
Volume=2619 Å³
a=8.88 Å
b=17.45 Å
c=18.10 Å
α=74.30°
β=89.27°
γ=105.73°

FIG. 6

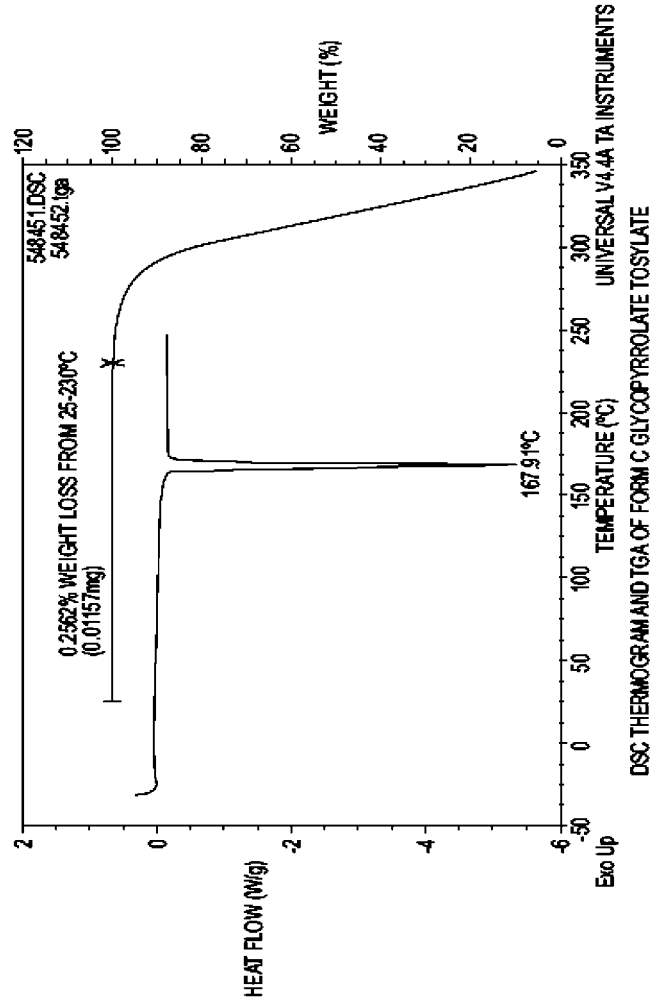


FIG. 7

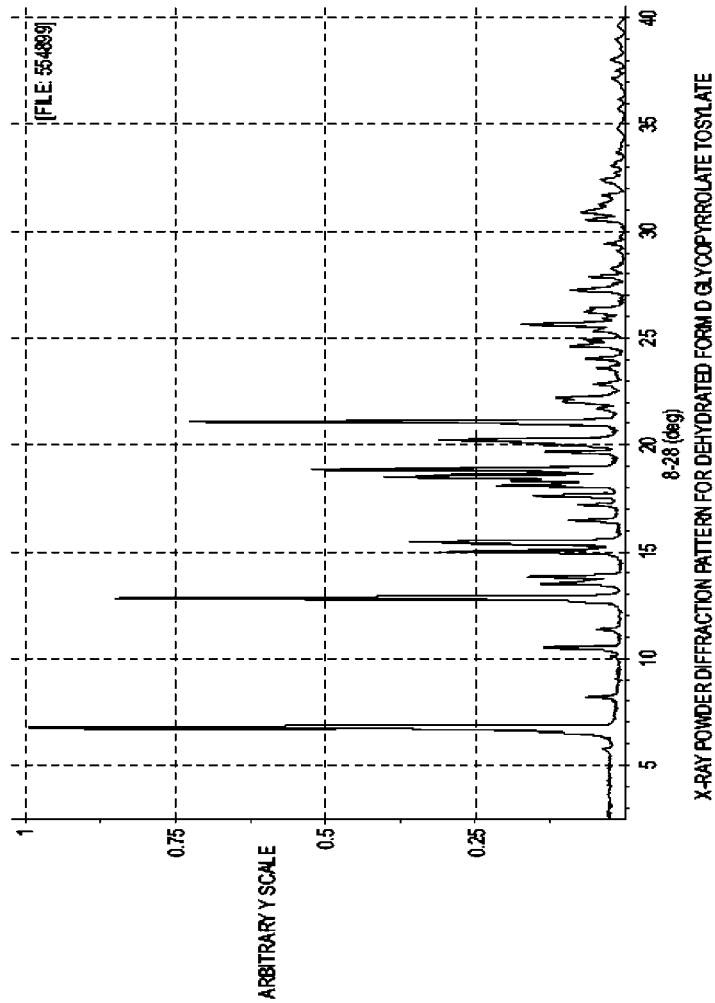
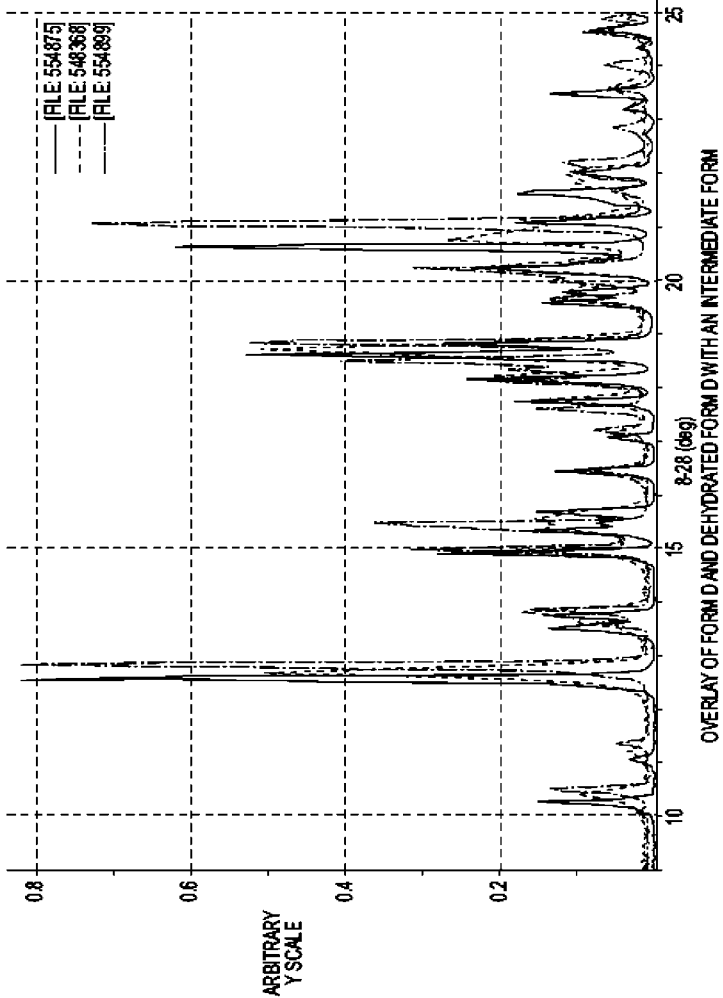


FIG. 8



OVERLAY OF FORM D AND DEHYDRATED FORM D WITH AN INTERMEDIATE FORM

FIG. 9

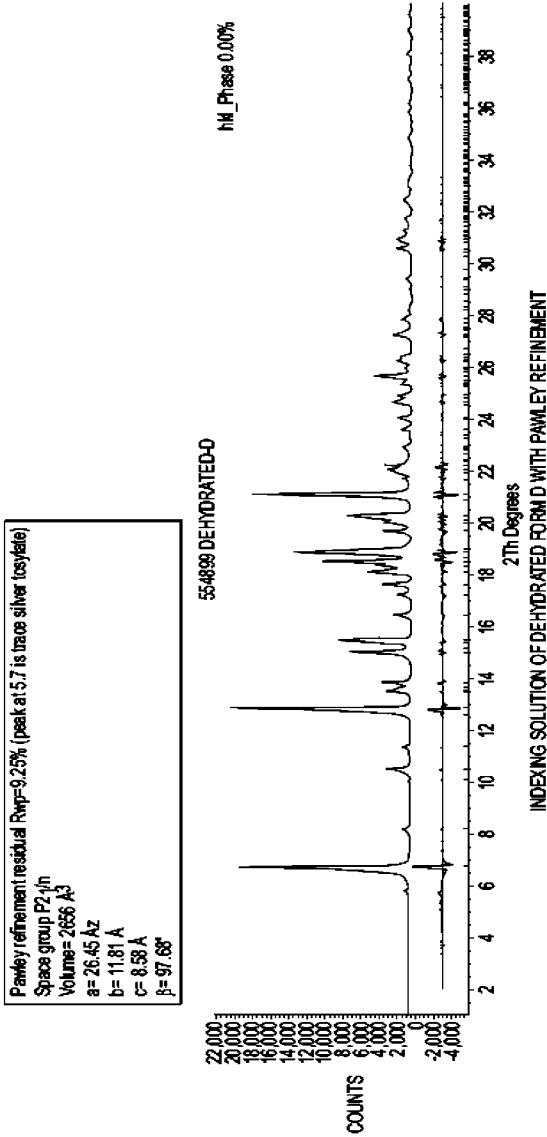


FIG. 10

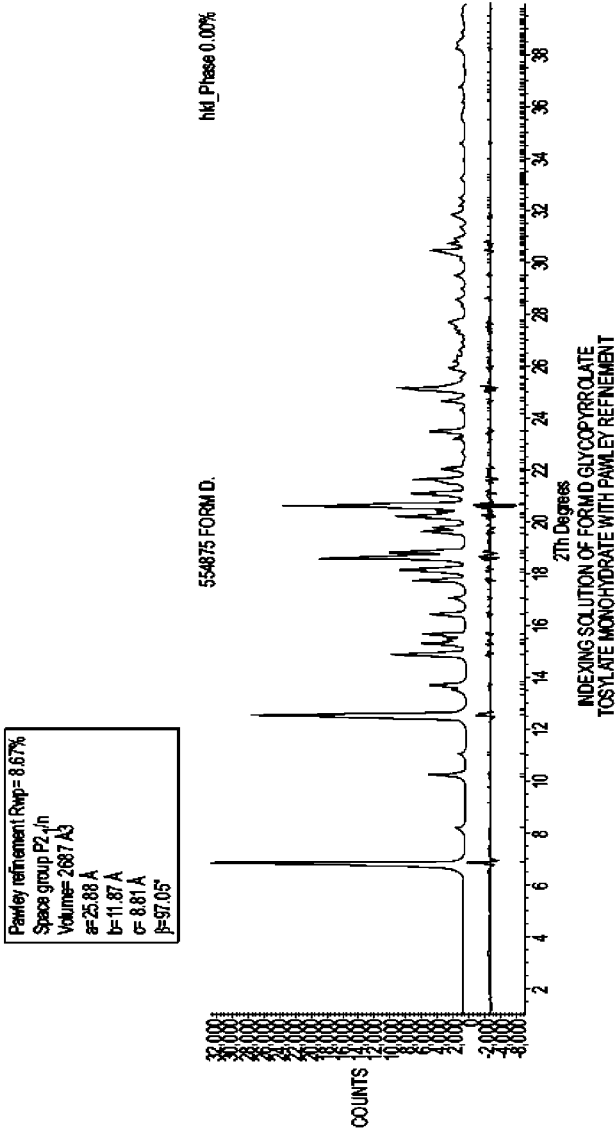


FIG. 11

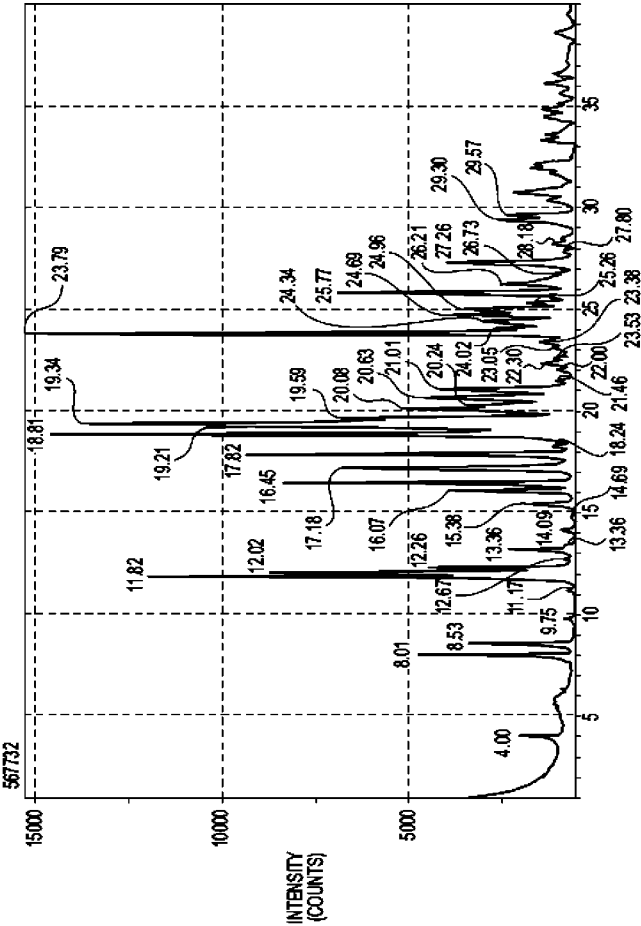
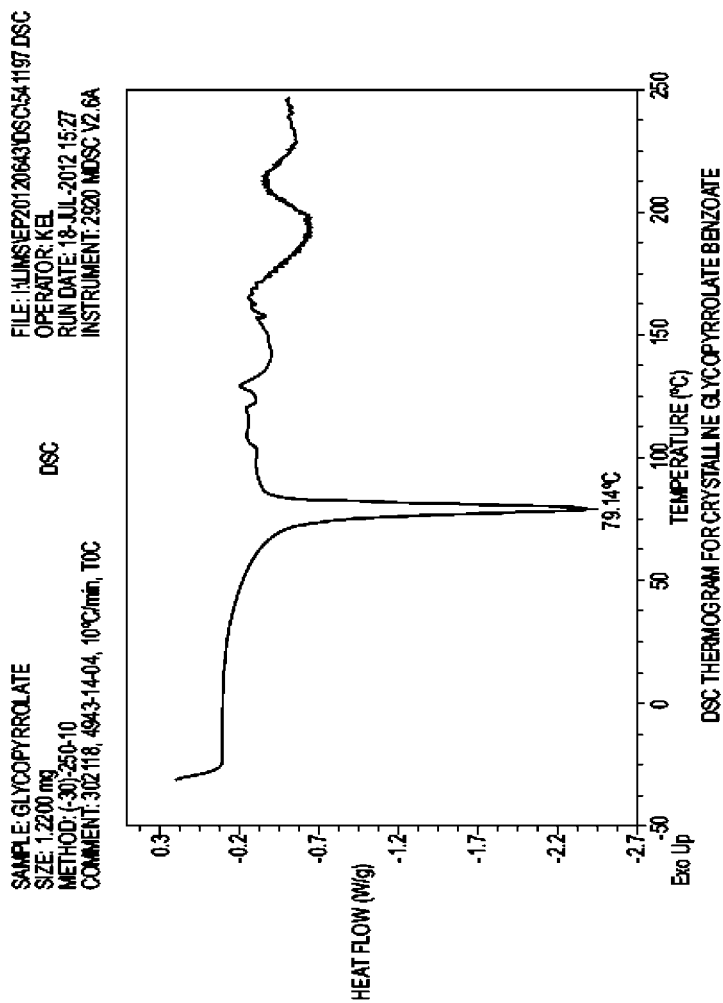


FIG. 12

X-RAY POWDER DIFFRACTION PATTERN FOR CRYSTALLINE GLYCOPYRROLATE BENZOATE WITH PEAK PICKS

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**FIG. 13**

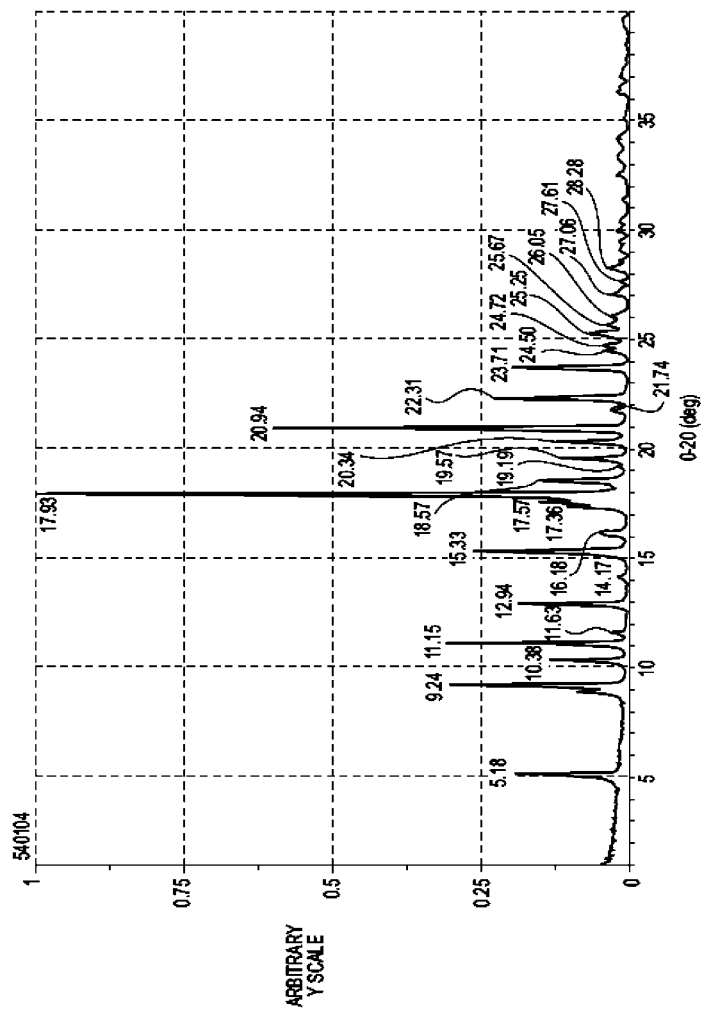
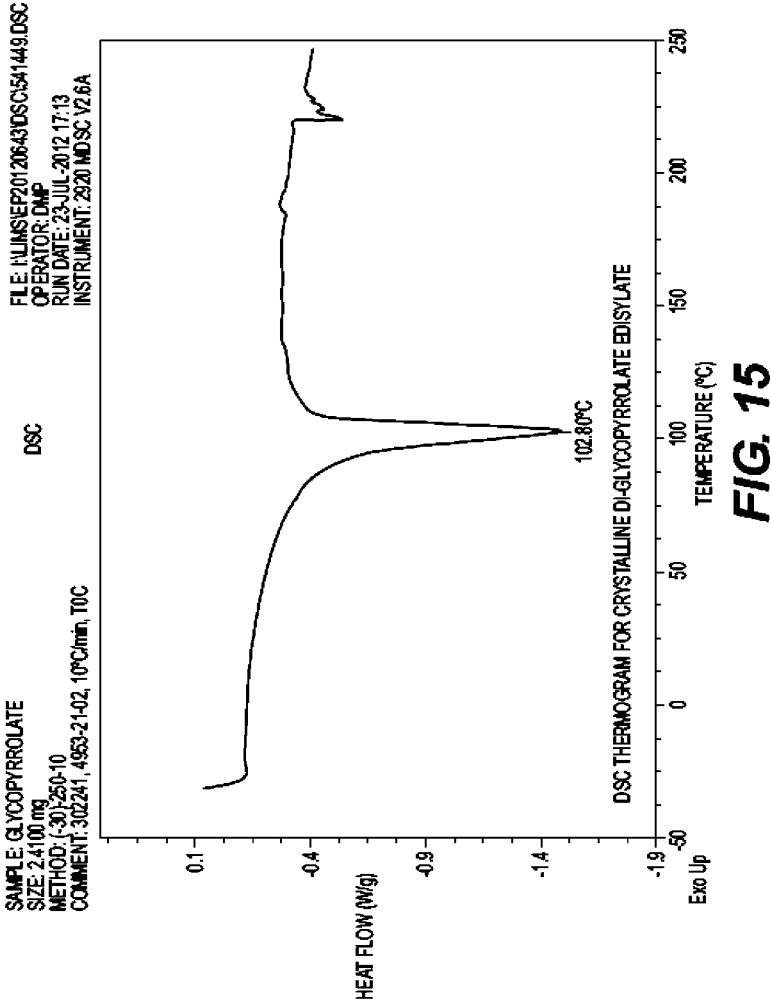


FIG. 14

X-RAY POWDER DIFFRACTION PATTERN FOR CRYSTALLINE DI-GLYCOPYRROLATE EDISYLATE WITH PEAK PICKS



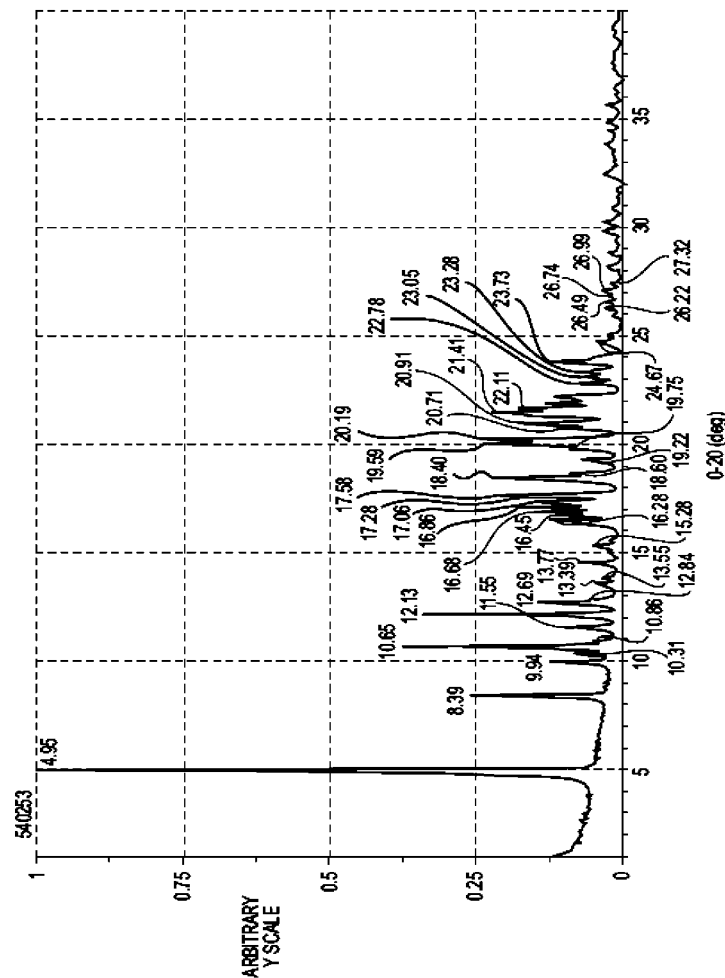
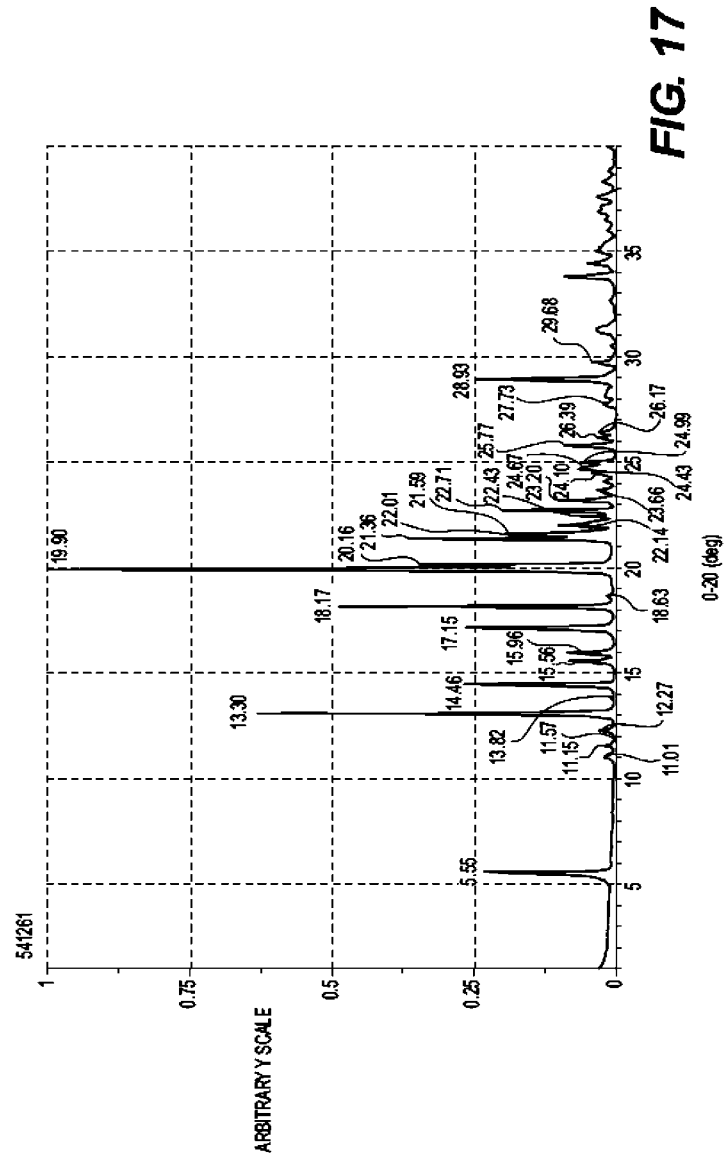
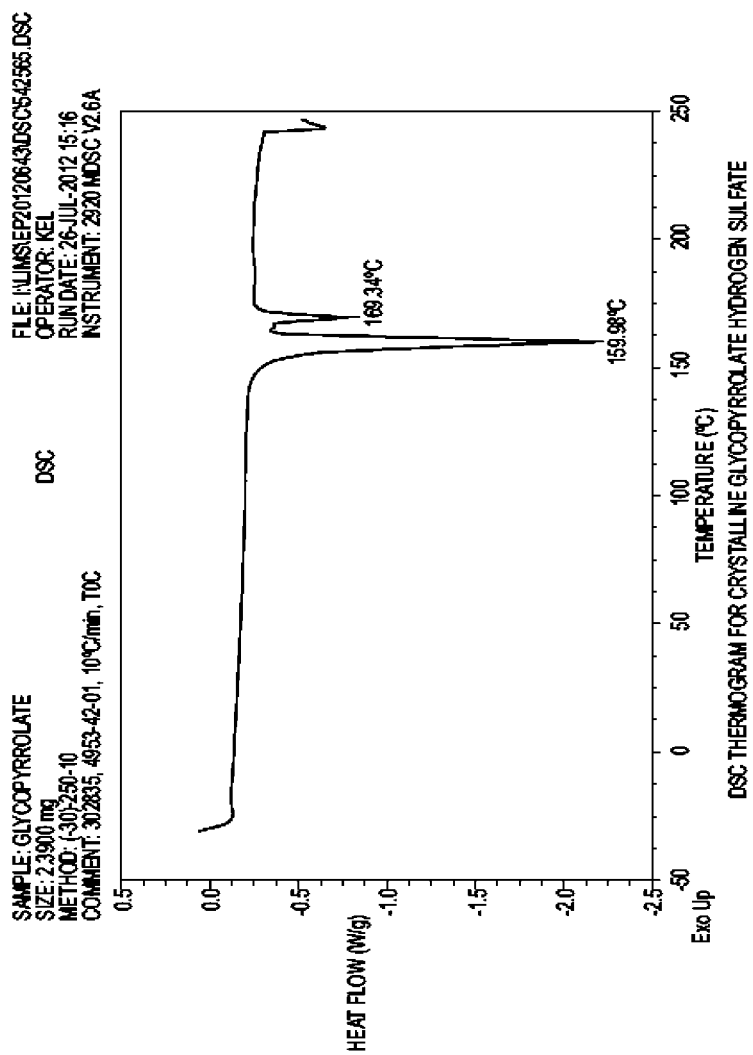


FIG. 16

X-RAY POWDER DIFFRACTION PATTERN FOR CRYSTALLINE GLYCOPYRROLATE OXALATE WITH PEAK PICKS



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**FIG. 18**

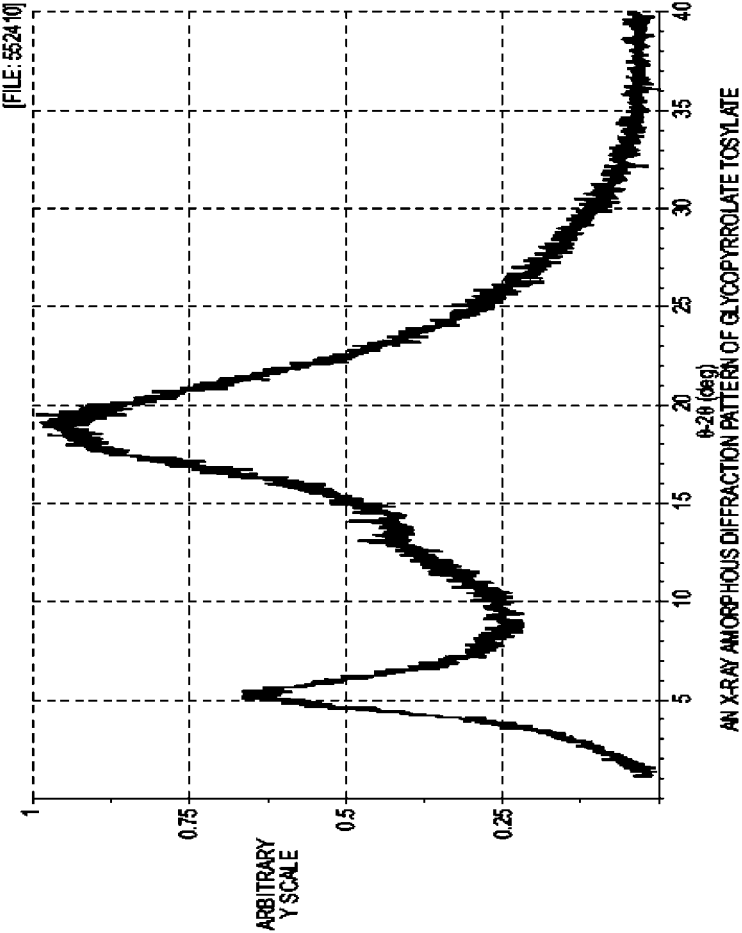


FIG. 19

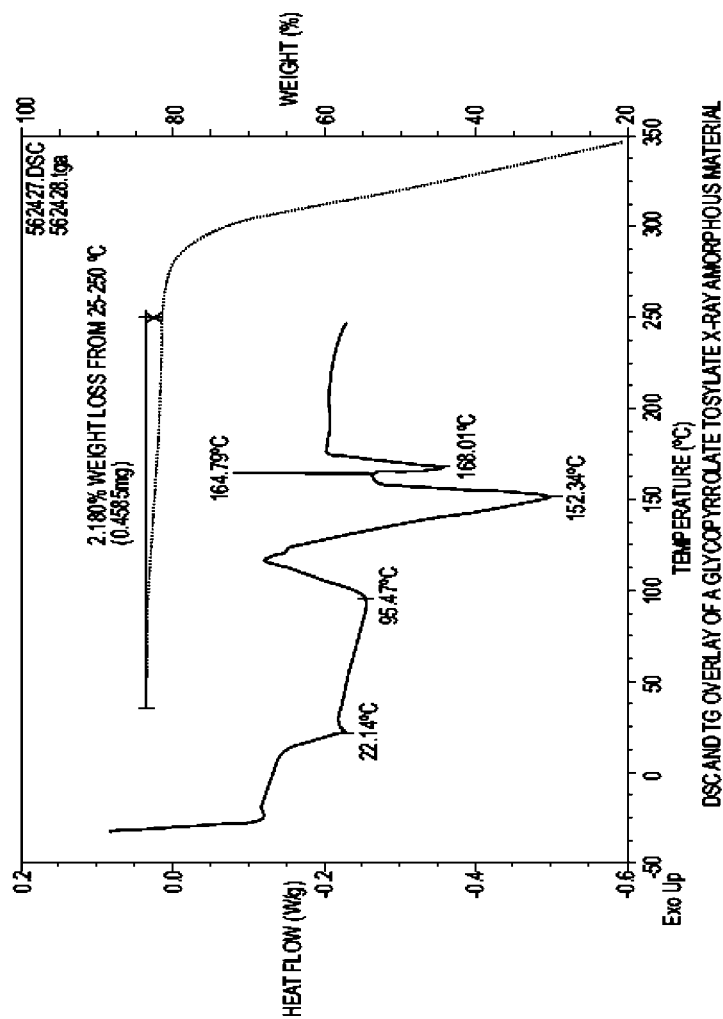


FIG. 20

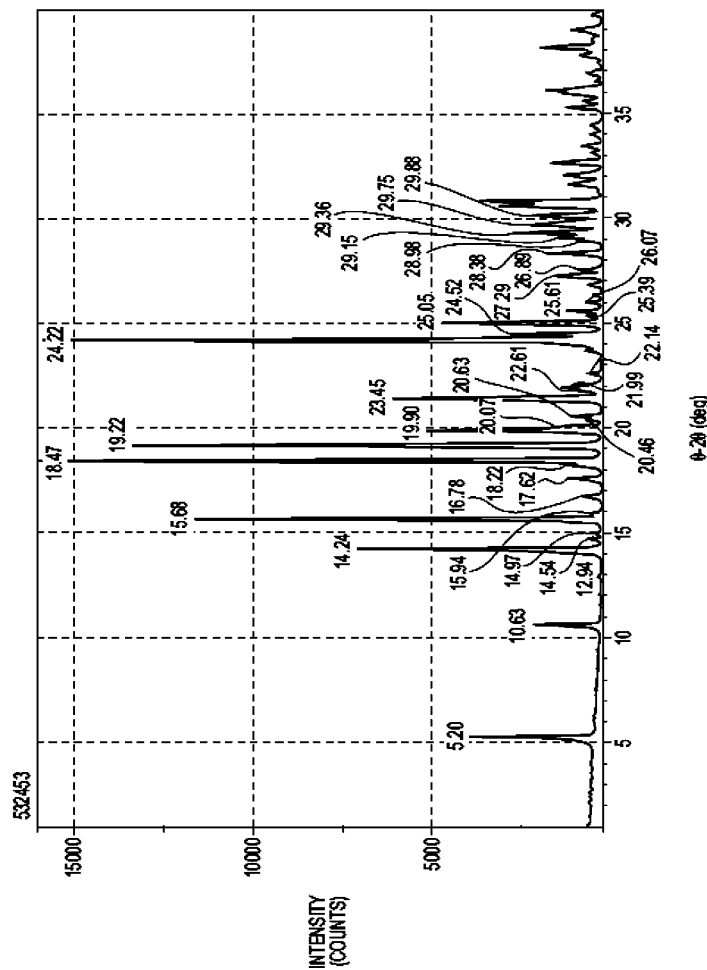


FIG. 21

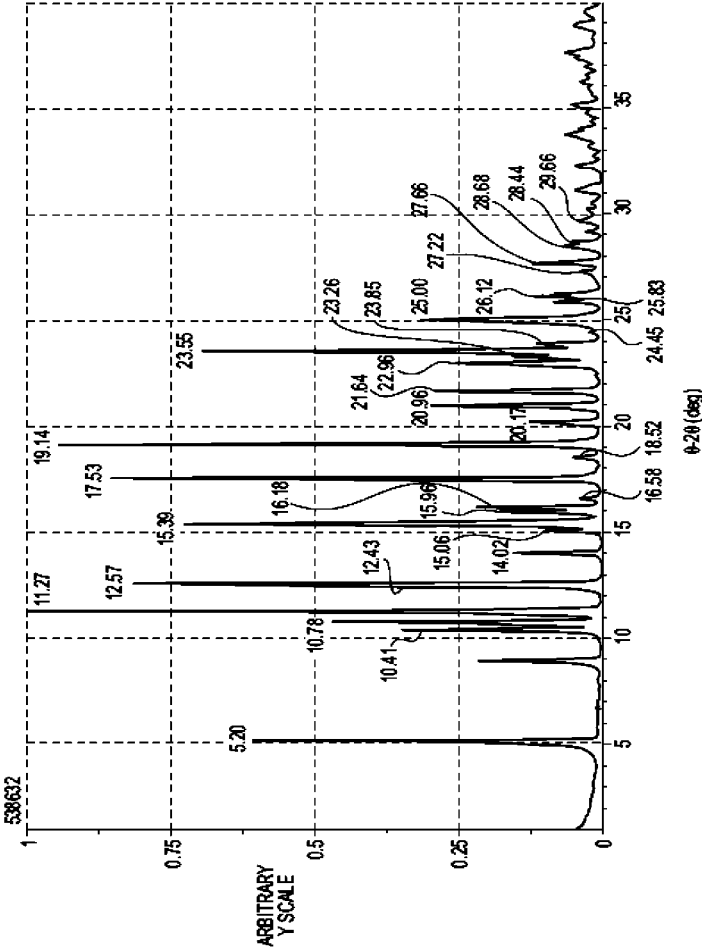


FIG. 22
X-RAY POWDER DIFFRACTION PATTERN FOR GLYCOPYRROLATE ACETATE

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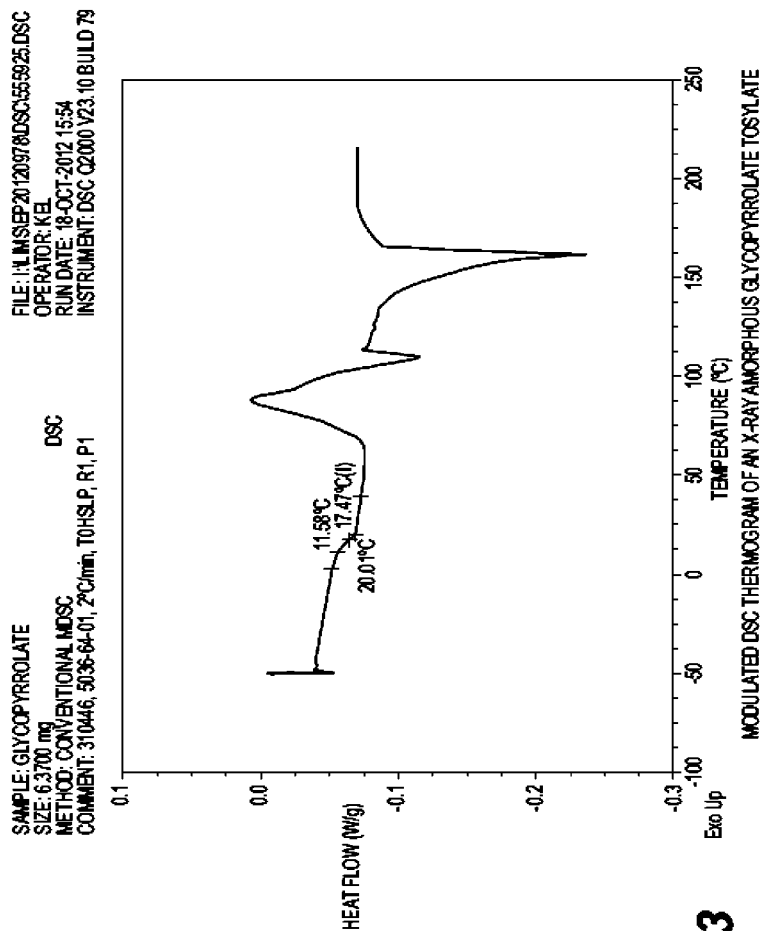


FIG. 23

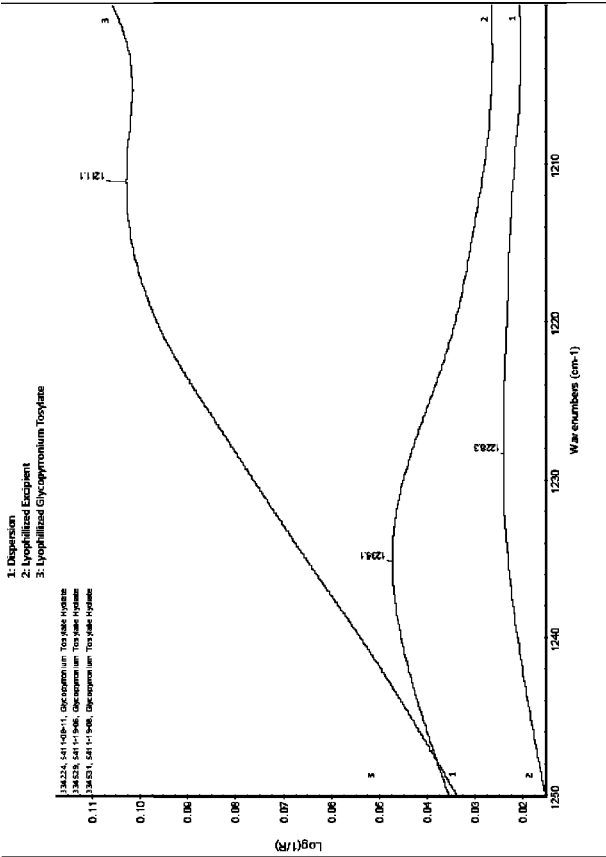


FIG. 24

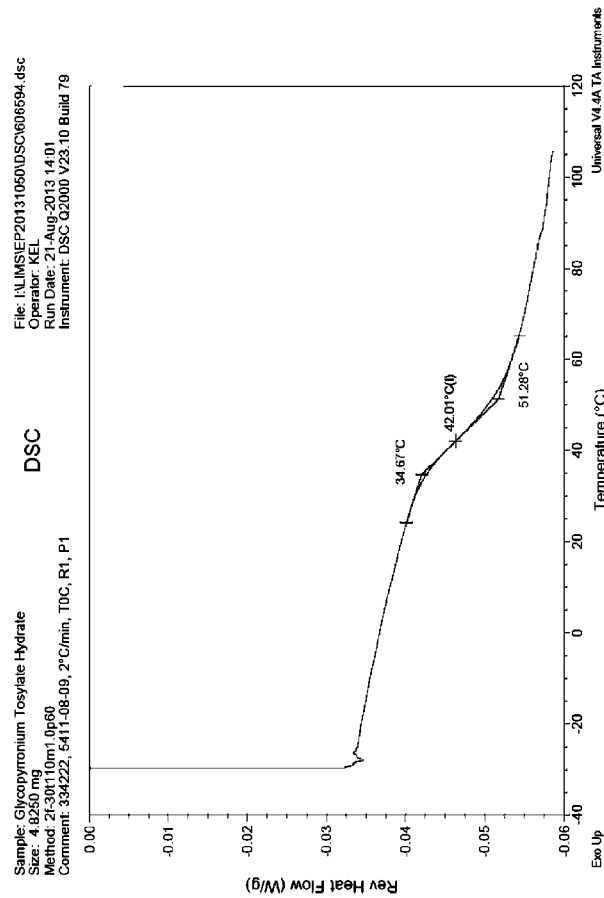


FIG. 25

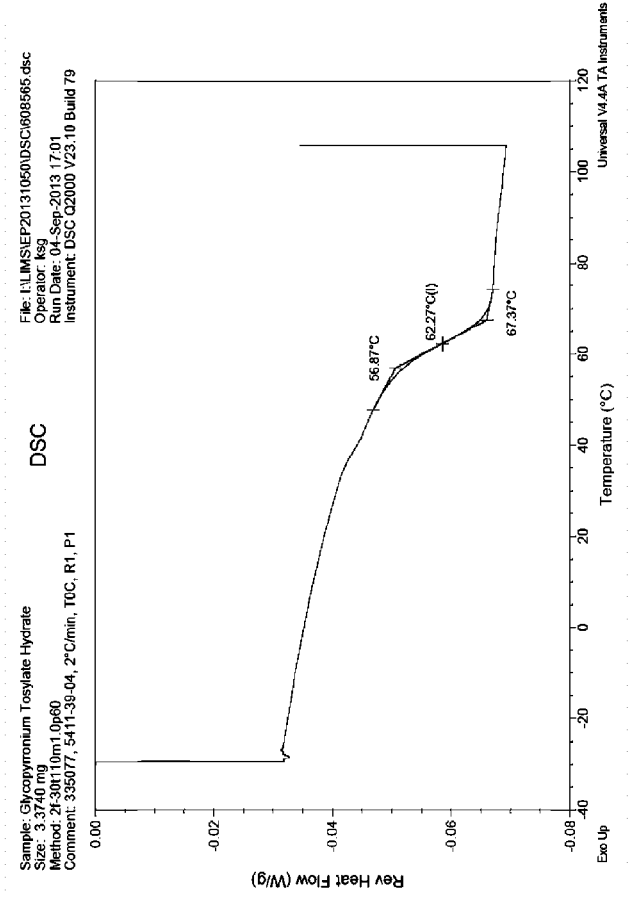


FIG. 26

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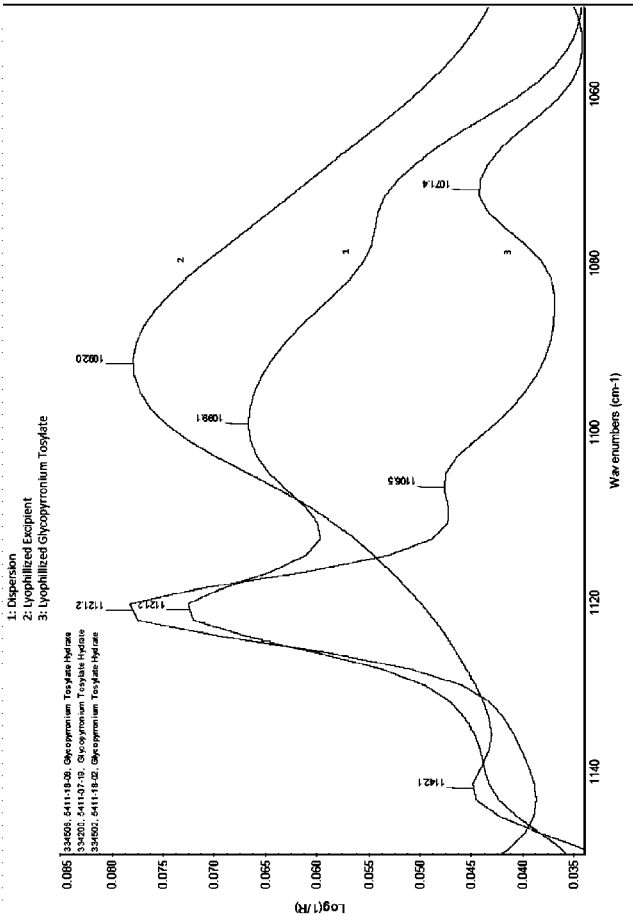


FIG. 27a

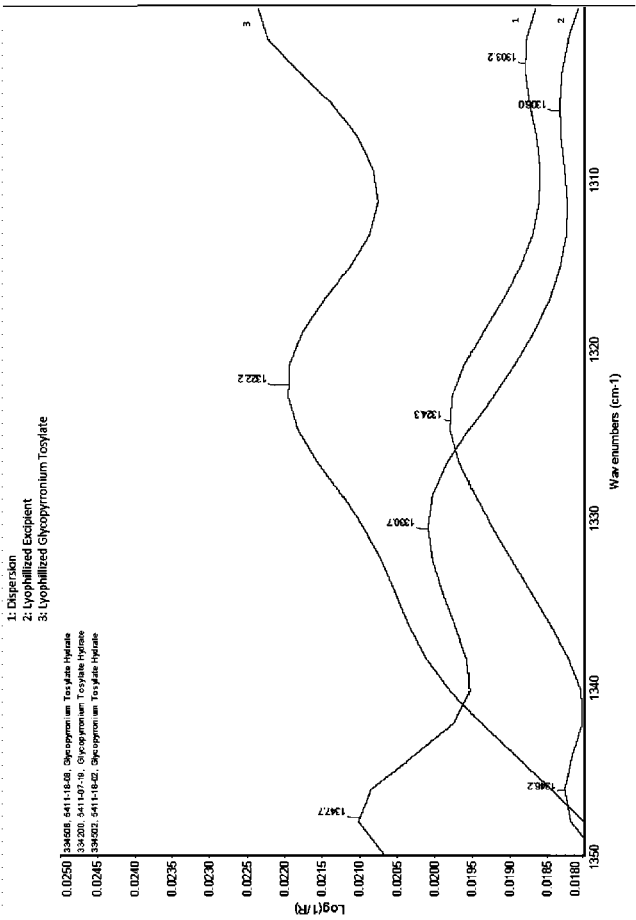


FIG. 27b

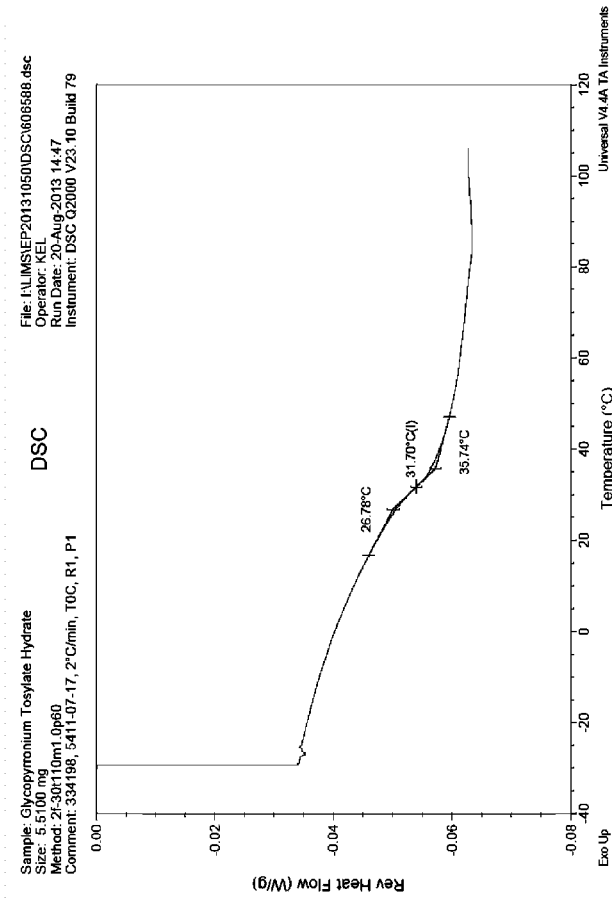


FIG. 28

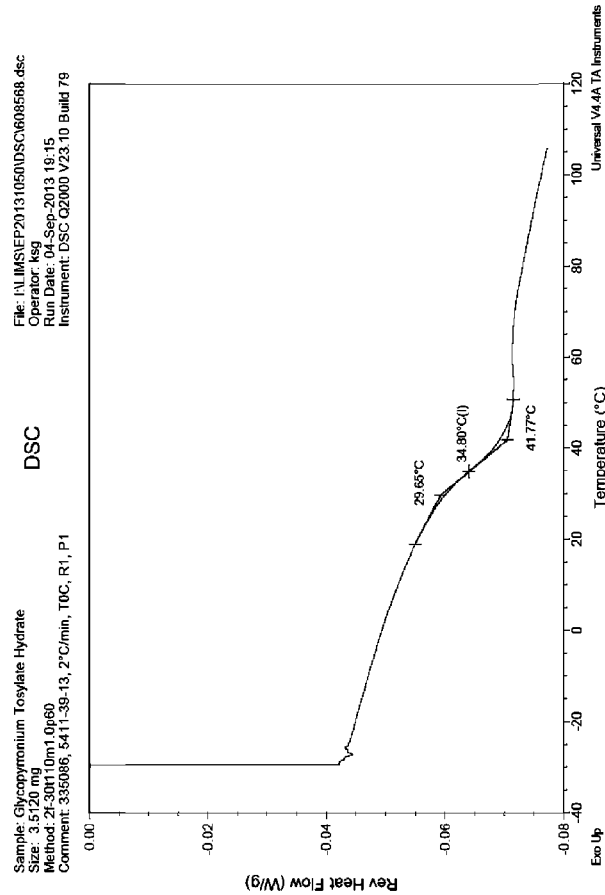


FIG. 29

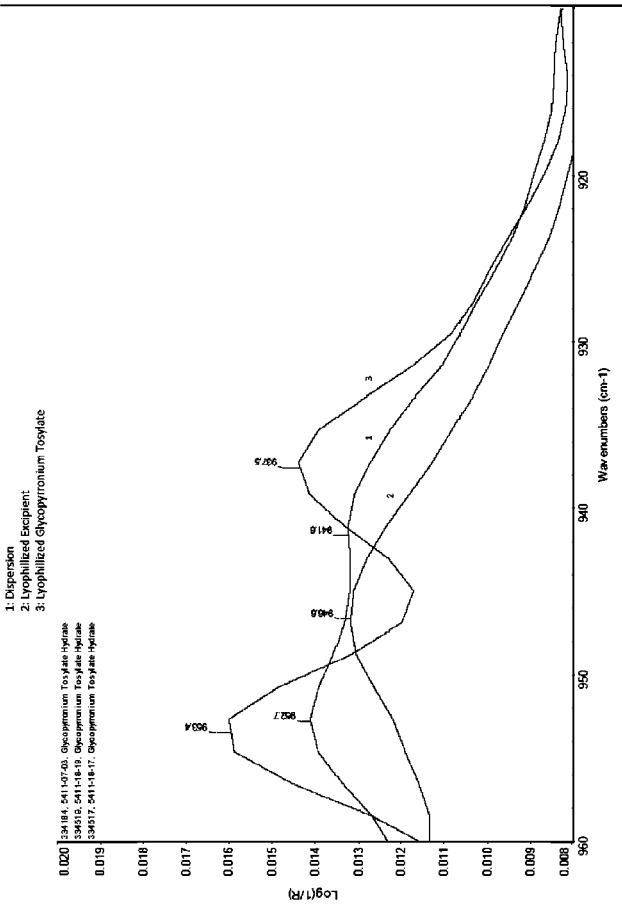


FIG. 30a

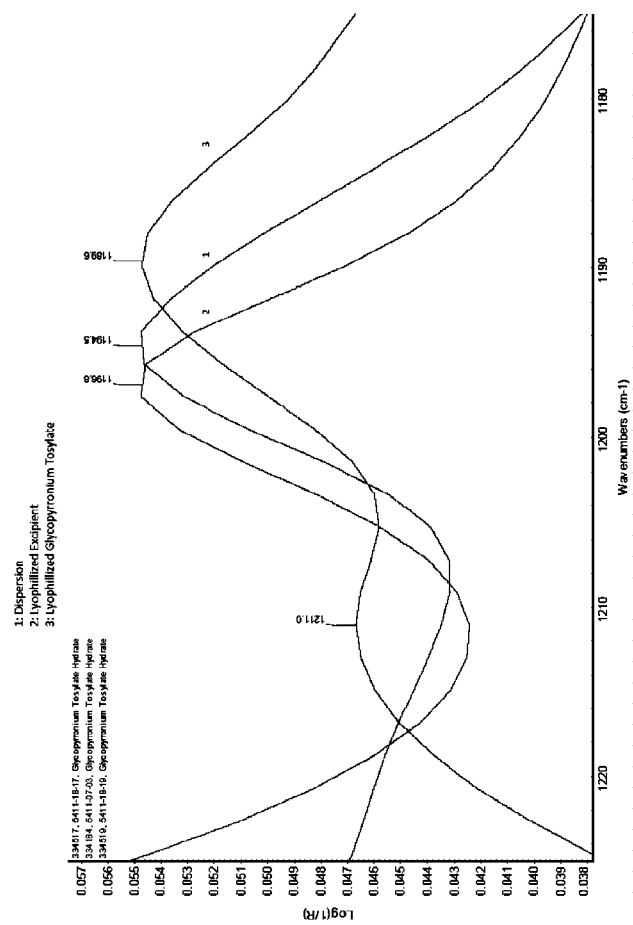


FIG. 30b

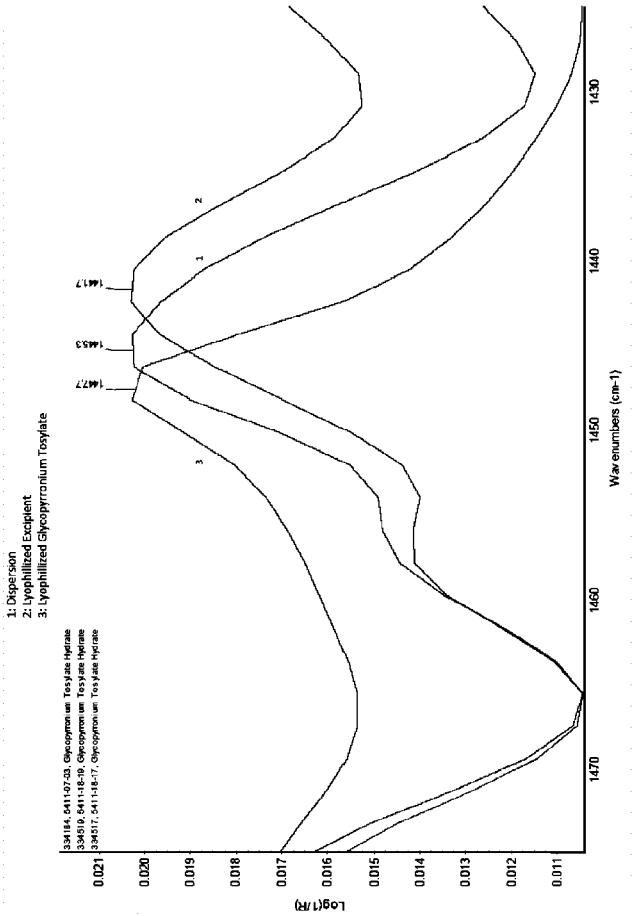


FIG. 30c

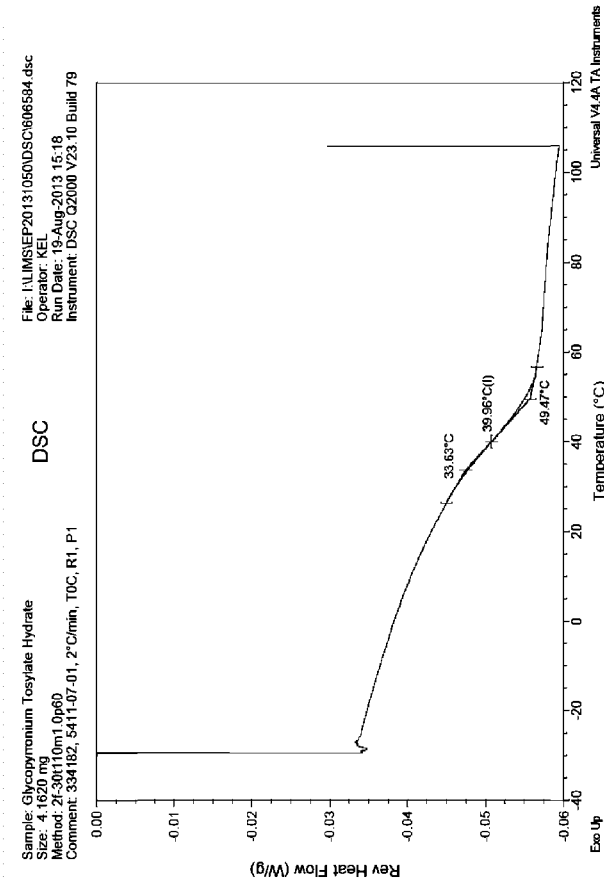


FIG. 31

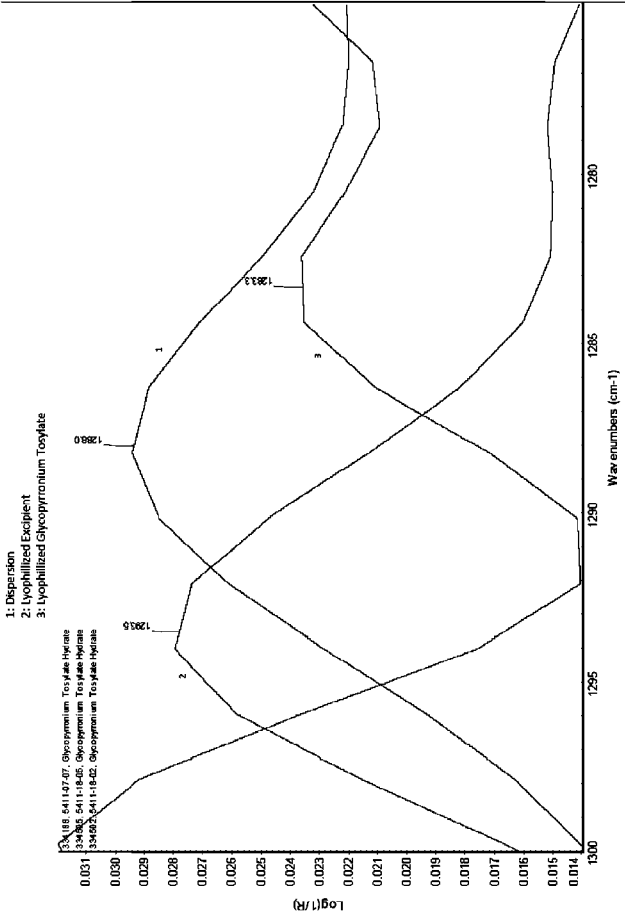


FIG. 32a

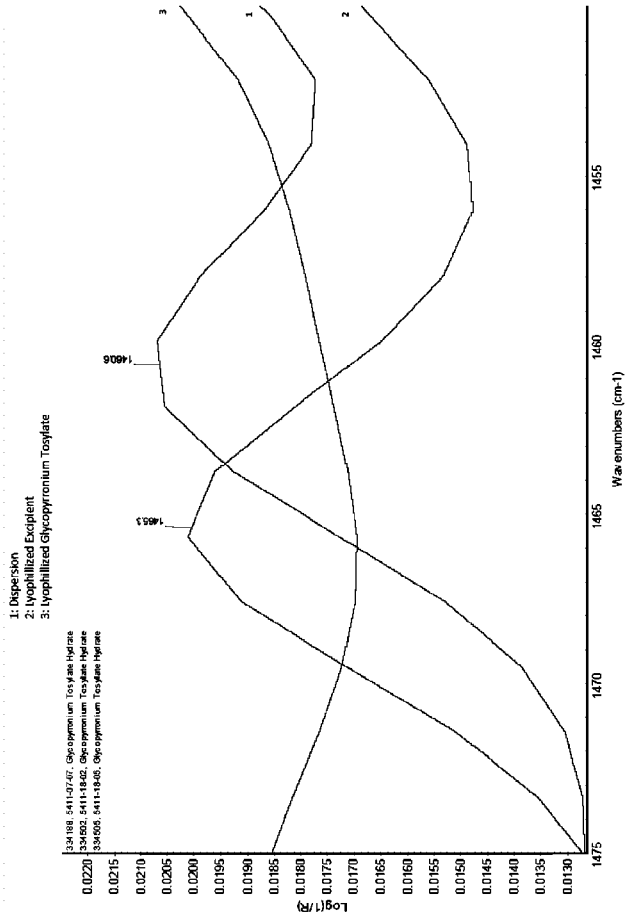


FIG. 32b

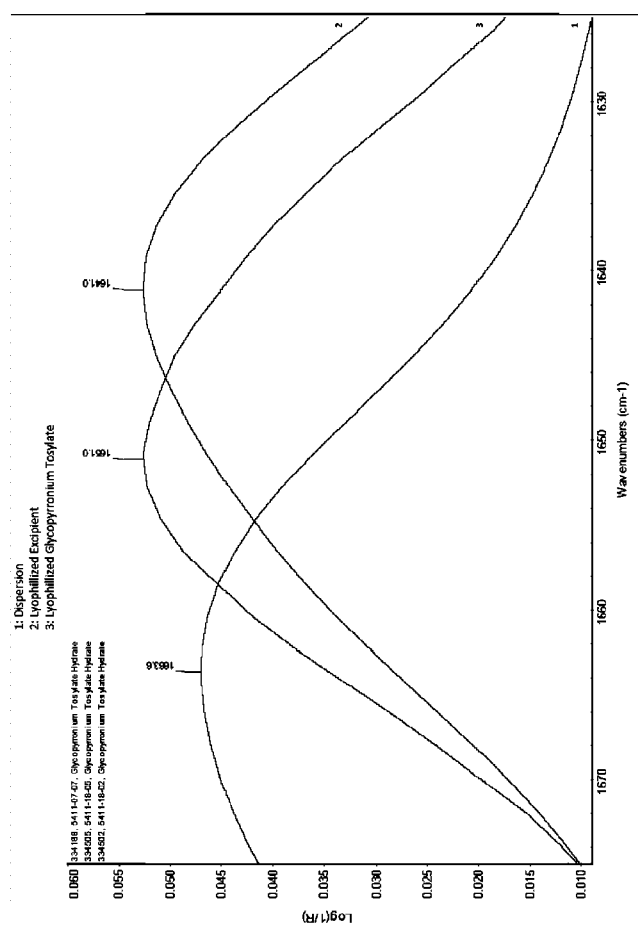


FIG. 32C

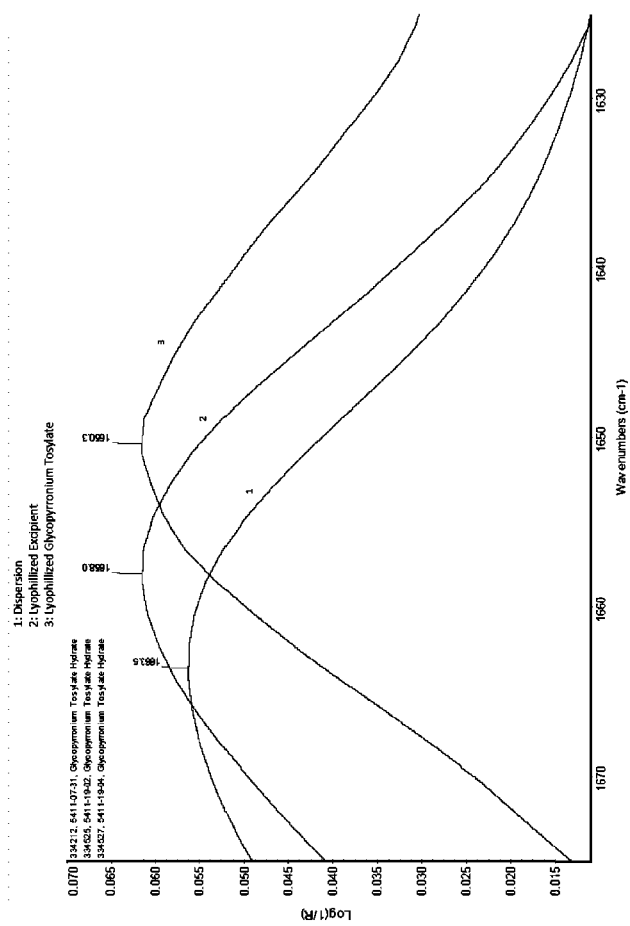


FIG. 32d

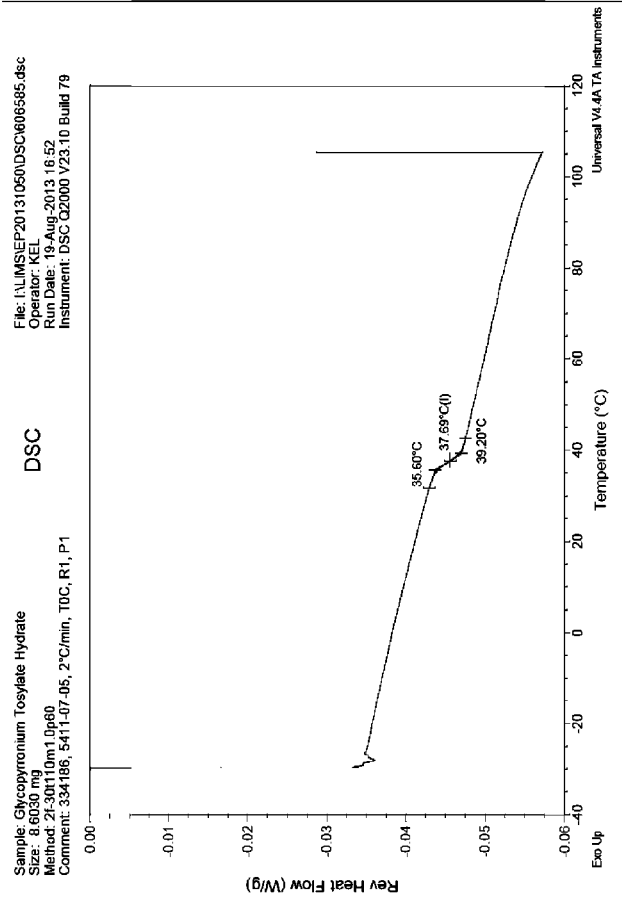


FIG. 33

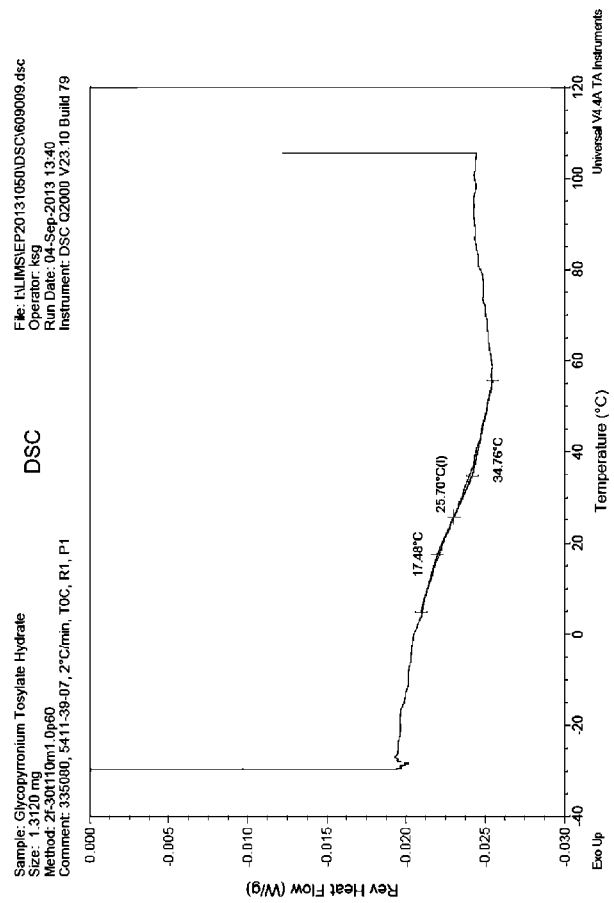


FIG. 34

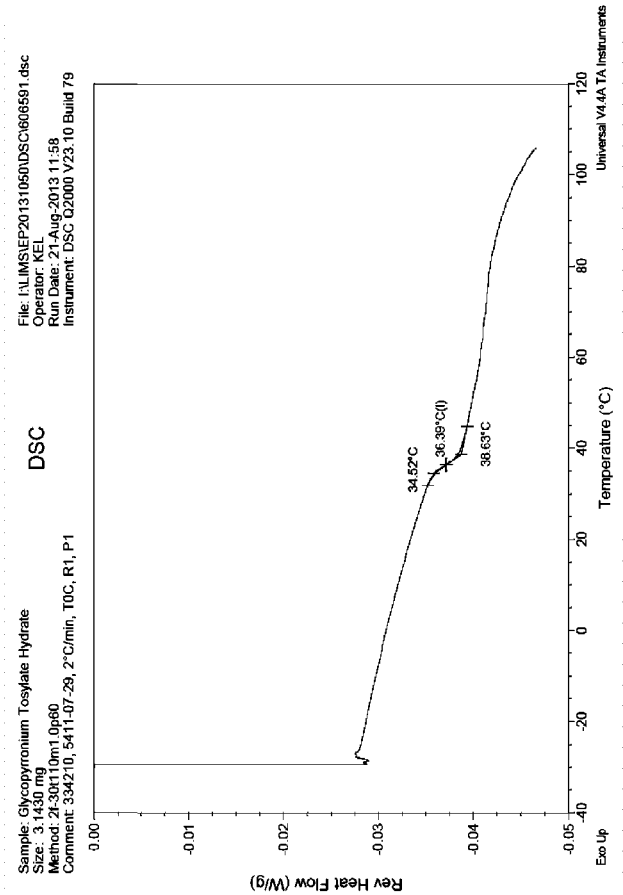


FIG. 35

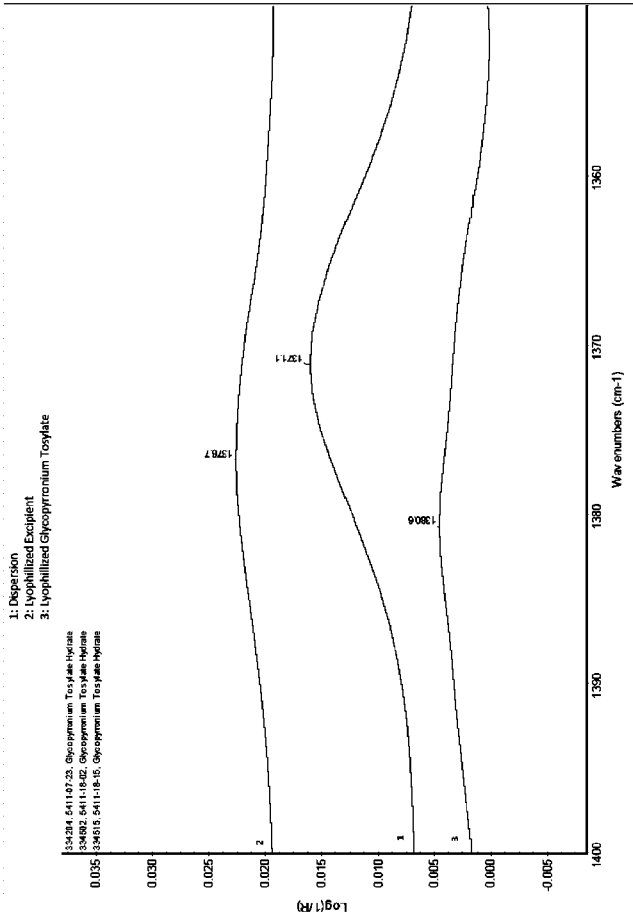


FIG. 36a

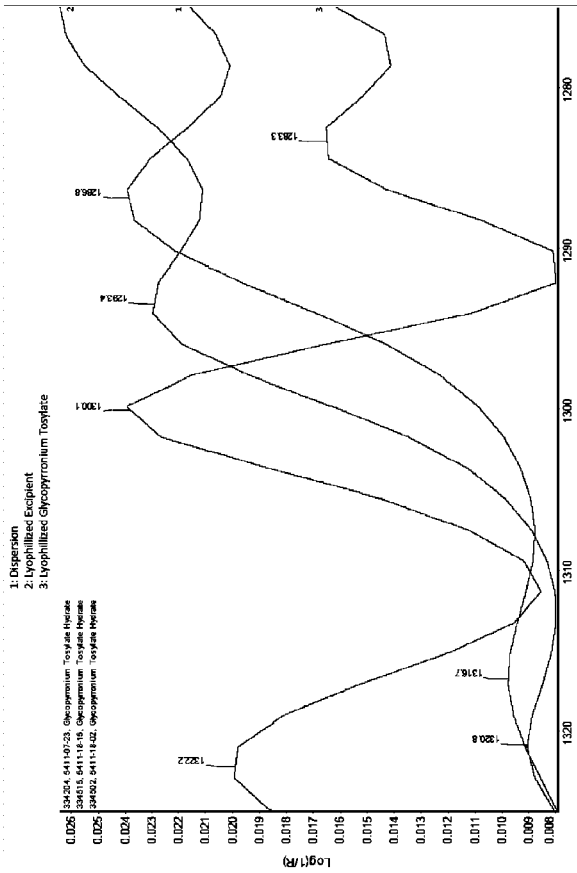


FIG. 36b

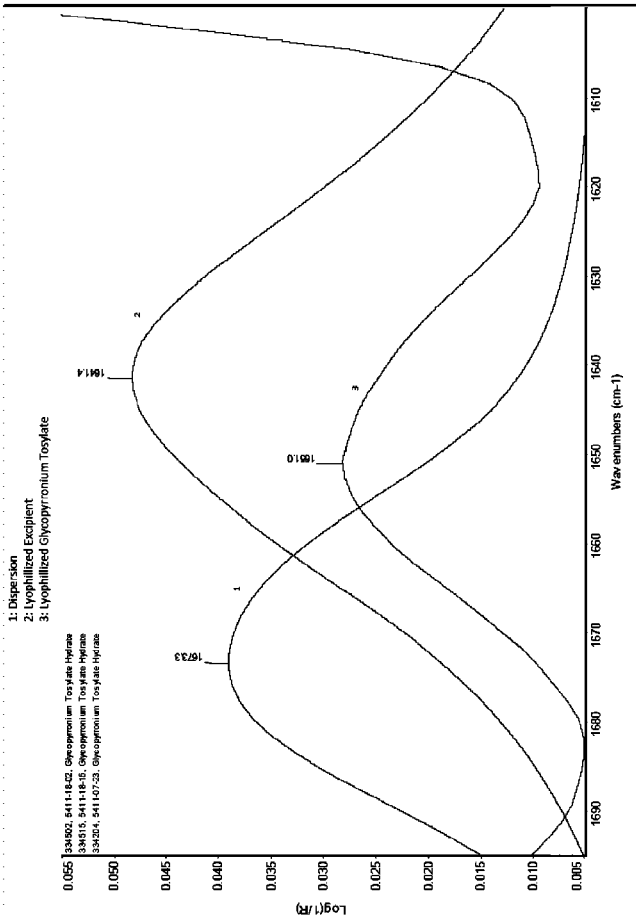


FIG. 36c

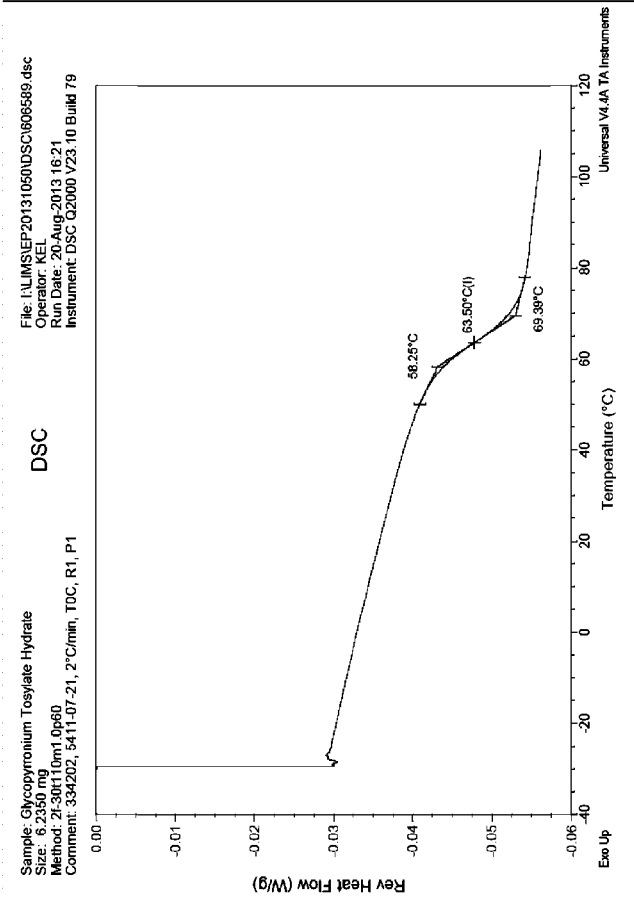


FIG. 37